

Aero Design Ltd.**Work Order Control Sheet**Work Order#: 2017-12 Date Opened: 13 January 2017 Title: AssemblyAircraft OEM: Eurocopter Aircraft Model: AS350 Product Type: Bicycle Rack Product Model: Rails Quantity: 40 LH/ 32 RH**Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification
Time Sheet (R&D)
Notes

Initial or N/A

JC
N/A
JC
JC
N/A
JC
N/A
N/A

Component Completion

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

40/32
0
N/A
N/A

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Placed in Stores for Distribution

Initial or N/A

N/A
N/A
N/A
N/A
JC - see note

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

Initial or N/A

JC
N/A

Drawing List

Drawing #	Rev #	Description	Initial or N/A
100215	0	Bike Rack Base Fab	JC

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

Initial or N/A

JC
N/A
N/A

Traveller

Initial or N/A

Notes:

Rails marked with WO # prior to being placed in stores - JC

Work performed by:

ICC / Dual Inspection performed by:

Work Order closed by:

Print: J. Francis

Print: N/A - JC

Print: J. Clarke

Sign: [Signature] for J. FrancisSign: [Signature]Sign: [Signature]

SCA: AD08

SCA:

SCA: AD02

Date: 20-Jun-18

Date:

Date: 18-Mar-19

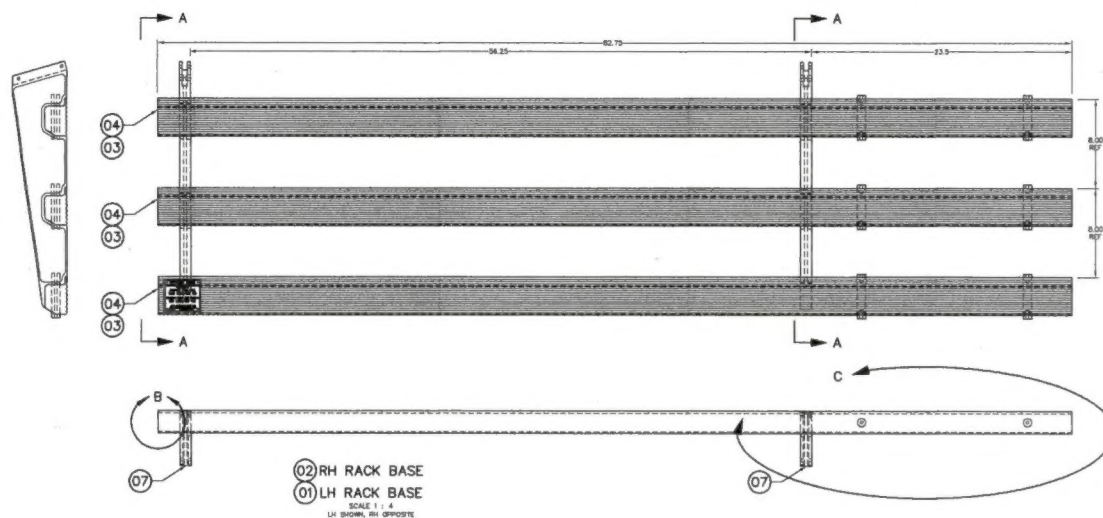
Approved Manufacturing Facility 73-04

Form 2010.03

Rev. Original 23 Sep 2014

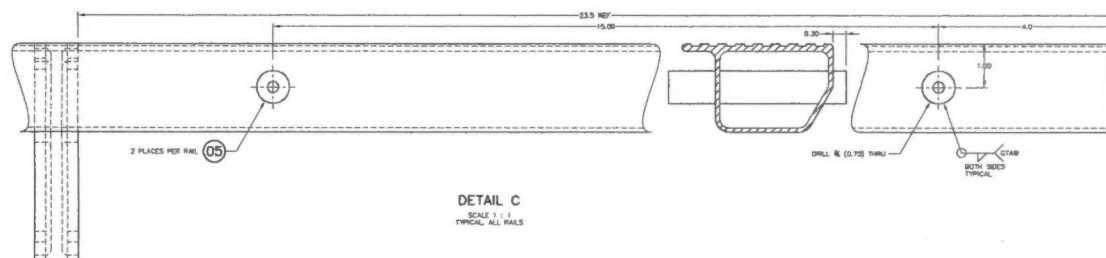
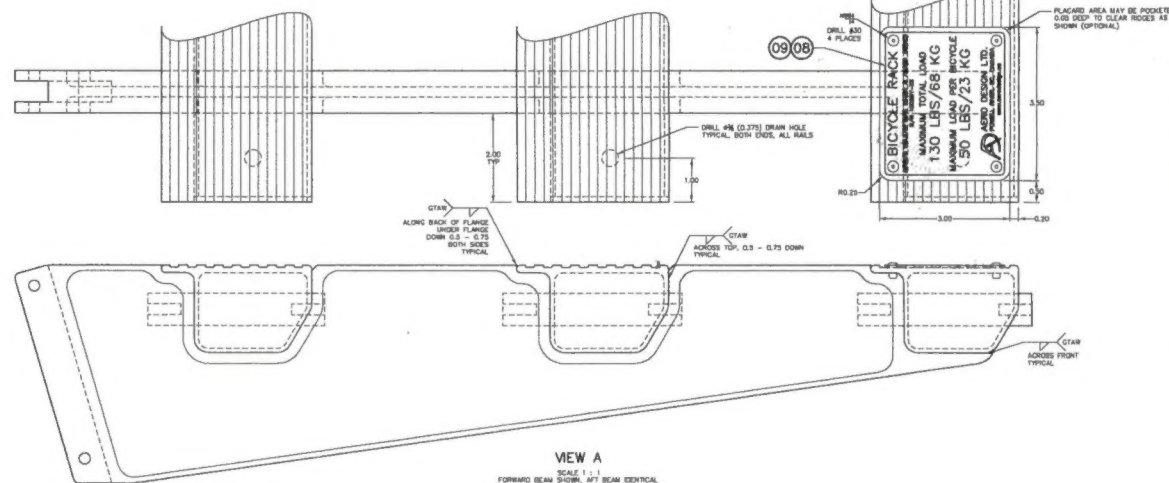
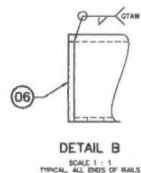
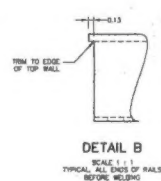
2018-33

REV	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		



NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. WELDING OF 6063 ALUMINUM TO BE COMPLETED BY GTAW METHOD TO ANS/BSQC. WELDING ROD SHALL CONFORM TO AWS/AWS ER60S.
3. FINISH ALUMINUM PARTS - AFTER WELDING:
THOROUGHLY DEGREASE, ALDINE, EPOXY PRIME AND POLYURETHANE PAINT.
ALTERNATE POWDER COATING:
- THOROUGHLY DEGREASE USING TOP CHEMICALS TOP COAT 8888 DEGREASER / HIGH PHOSPHATE @ 25 BY VOLUME.
- PRIMER COAT USING SHERRILL'S POLYESTER BARRIER DUTY PRIMER OR EQUIVALENT POWDER COAT MATERIAL.
- AND PROCESS THAT DOES NOT EXCEED TEMPERATURE/TIME LIMITS NOTED BELOW.
- CURE POWDER COATING AT 267° (±10°) FOR 30 MINUTES (±3 MIN).
4. INSTALL PLACARD AFTER SURFACE FINISH IS DRY.



4	4	CRUSLEY 4-04 TO TUBULAR RING	ALT: 100215-4-04		
1	1	100215-01 01 PLACARD			
2	2	100215-02 02 PLACARD			
3	3	100215-03 03 RACK EXTRUSION			78230 EXTRUSION
4	4	100215-04 04 RACK EXTRUSION			78230 EXTRUSION
5	5	100215-05 05 RACK EXTRUSION			78230 EXTRUSION
6	6	100215-06 06 RACK EXTRUSION			78230 EXTRUSION
7	7	100215-07 07 RACK EXTRUSION			78230 EXTRUSION
8	8	100215-08 08 RACK EXTRUSION			78230 EXTRUSION
9	9	100215-09 09 RACK EXTRUSION			78230 EXTRUSION
10	10	100215-10 10 RACK EXTRUSION			78230 EXTRUSION
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100	100	100215-100 100 RACK EXTRUSION			78230 EXTRUSION

BASIC CODE REF: 100215	DRAWN BY: JEFF CLARK CHECKED BY: JASON REWIE DATE: 13 JUNE 2018	APPROVALS DATE: 13 JUNE 2018	DATE: 13 JUNE 2018
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: X.XX ±0.010 X.XX ±0.013 X.XX ±0.1	ANGLES 1/2"	SCALE 1 : 4	REV
SHEET 1 OF 1	A0 100215 0		

AERO DESIGN LTD.
AIRBUS HELICOPTERS AS350 & AS355 SERIES
BICYCLE RACK INSTALLATION
RACK BASE FABRICATION



Aero Design Ltd.

Type: AS350 BIKE RACK RAILS Work Order: 2018-33

Task	By	Notes	Date
3 R/H Rails welded	AD 73-04 05		March 12/2018
3 L/H Rails welded	AD 73-04 05		April 20/2018
3 R/H Rails welded	AD 73-04 05		April 20/2018
3 R/H Rails welded	AD 73-04 05		April 24/2018
5 R/H Rails welded	AD 73-04 05		April 24/2018
9 L/H Rails welded	AD 73-04 05		April 24/2018
13 L/H Rails welded	AD 73-04 05		May 7/2018
13 R/H Rails welded	AD 73-04 05		May 7/2018
6 L/H Rails welded	AD 73-04 05		June 12/2018
3 R/H Rails welded	AD 73-04 05		June 12/2018
1 L/H Rails welded	AD 73-04 05		June 18/2018
2 R/H Rails welded	AD 73-04 05		June 18/2018
7 L/H Rails welded	AD 73-04 05		June 20/2018

J.F.14

32 RH

40 LH

total

RAILS ONLY

Aero Design Ltd. Component Fabrication

100215-01 Bicycle Rack Base

Work Order Number: 2015-33Date: 05 MAR 2018Notes:

Drilling speed to 320 RPM.

Rapid Tap cutting fluid or equivalent coolant required

Rail

Tasks

SCA

1.	Record material PO below	J.F.
2.	Cut 78230 step extrusion to 82.75" in length	J.F.
	On each end, cut the side and bottom walls shorter by 1/8" leaving the tread rail full length IAW drawing 100215 Detail B	J.F.
3.	Deburr one end on buffing wheel	J.F.
4.	On the bottom wall, place a mark 7/8" from each end and drill 3/8" hole which will act as a drain and allow ventilation during the welding process	J.F.

AD
73-04
08

Manual Mill

5.	While supporting the long end of the rail, clamp aft end (dependant on LH or RH) into the manual mill vice	NR
6.	Using standard practices, zero off of the end and back of the part and set zero on the X and Y axis on the digital display	NR
7.	Set table to drill locations IAW drawing 100215 Detail C and bore .75" holes	NR
8.	Deburr edges and holes	NR

AD
73-04
02

Welding

9.	Wipe parts with Acetone or equivalent solvent	AD-05
10.	Place 100226-01 bushings in .75" holes and locate them IAW drawing 100215 Detail C	AD-05
11.	Weld IAW drawing 100215	AD-05
12.	Place cap 82720-04 on each end and weld IAW drawing 100215 Detail B	AD-05

Beam

N/A JK.

13.	Cut 1" x 8" 6061-T6 extruded bar to 24 7/8" in length.	
14.	Install material in CNC mill ensuring RH edge overhangs for tool clearance	
15.	Set material stop to ensure subsequent steps and parts return to the same location	
16.	Load and run program 021 and 022	
17.	Rotate part 180 degrees on plane	
18.	Load and run program 021 and 022	
19.	Separate parts by cutting along mark scribed during machining process	

20.	Install 100230 jig plate into CNC straddling vices and lock down	
21.	Using a soft face hammer, tap the jig down to ensure it is seated	
22.	Zero table using standard practices	
23.	Mount separated part on jig using 1/4" bolts	
24.	Load and run program 023	
25.	Using vertical band saw, remove tooling lug at the outboard end	
26.	On manual mill, zero off the end of the part using standard machining practices	
27.	Using standard practices, machine surface area from which lug was removed	
28.	Inspect finish and dimensions of final part.	

Rack Base Assembly

N/A gr.

29.	Insert Helicoils in threaded bushings IAW drawing 100226	gr
30.	Install bike rack base beams into jig fixture	
31.	Install rails into beams	
32.	Weld IAW drawing 100215	
33.	Inspect finish and dimensions of final part.	
34.	Tag completed parts IAW Aero Design MPM.	

Material Purchase Order Number See POS

Batch Quantity 32 RH / 40 LH

Aero Design

Parts Distribution Sheet

AS350 Bike Rack Rails

38 LH
37 RH

WO# 2018-33

[illegible]